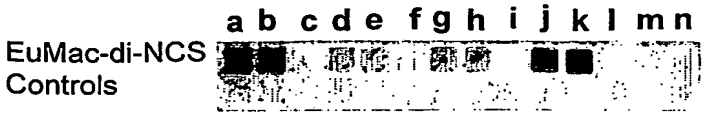
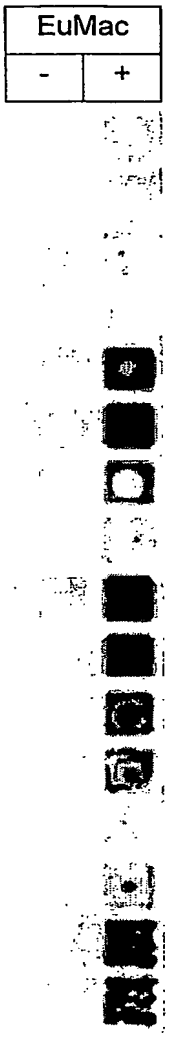


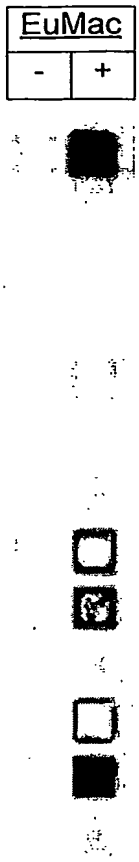
Figure 1 shows inverted images of the wells of a microtiter plate.



	Abbreviation	% EtOH	% H_2O	Integrated Lumines-cence
A	TTFA-25EtOH	25	75	10,667
B	TTFA-50EtOH	50	50	8,881
C	TTFA-75EtOH	75	25	7,306
D	TTFA-100EtOH	100	0	596
E	Gd(III)-TTFA-25EtOH	25	75	27,526
F	Gd(III)-TTFA-50EtOH	50	50	31,258
G	Gd(III)-TTFA-75EtOH	75	25	27,534
H	Gd(III)-TTFA-100EtOH	100	0	11,943
I	$Gd(TTFA)_3$-28EtOH	28	72	24,409
J	$Gd(TTFA)_3$-58EtOH	58	42	33,409
K	$Gd(TTFA)_3$-75EtOH	75	25	32,588
L	$Gd(TTFA)_3$-100EtOH	100	0	31,055
M	TTFA 1.45 mM EtOH			*Old solution
N	$Gd(TTFA)_3$ 1.2 mM EtOH			*Old solution
O	LEL Emulsion			36,497
P	LEL Emulsion			36,845

Figure 2 shows inverted images of the wells of a microtiter plate.

*These solutions had been kept at room temperature, which resulted in their producing questionable results.



Well	Abbreviation	Material	Solvent	Mean EuMac -Mean Neg. Cntrl.
A	LEL emulsion	LEL emulsion	H_2O	190
B	Gd(III)-H_2O	Gd(III)	H_2O	7.6
C	Gd(III)-MeOH	Gd(III)	MeOH	0.6
D	Gd(III)-Isopropanol	Gd(III)	Isopropanol	1.3
E	TTFA-H_2O	TTFA	H_2O	14.8
F	TTFA-MeOH	TTFA	MeOH	16.8
G	TTFA-Isopropanol	TTFA	Isopropanol	11.7
H	Gd(III)-TTFA-H_2O	Gd(III) + TTFA	H_2O	91
I	Gd(III)-TTFA-MeOH	Gd(III) + TTFA	MeOH	126
J	Gd(III)-TTFA-Isopropanol	Gd(III) + TTFA	Isopropanol	8.5
K	$Gd(TTFA)_3$-H_2O	$Gd(TTFA)_3$	H_2O	67
L	$Gd(TTFA)_3$-MeOH	$Gd(TTFA)_3$	MeOH	152
M	$Gd(TTFA)_3$-Isopropanol	$Gd(TTFA)_3$	Isopropanol	25

Figure 3 shows inverted images of the wells of a microtiter plate.

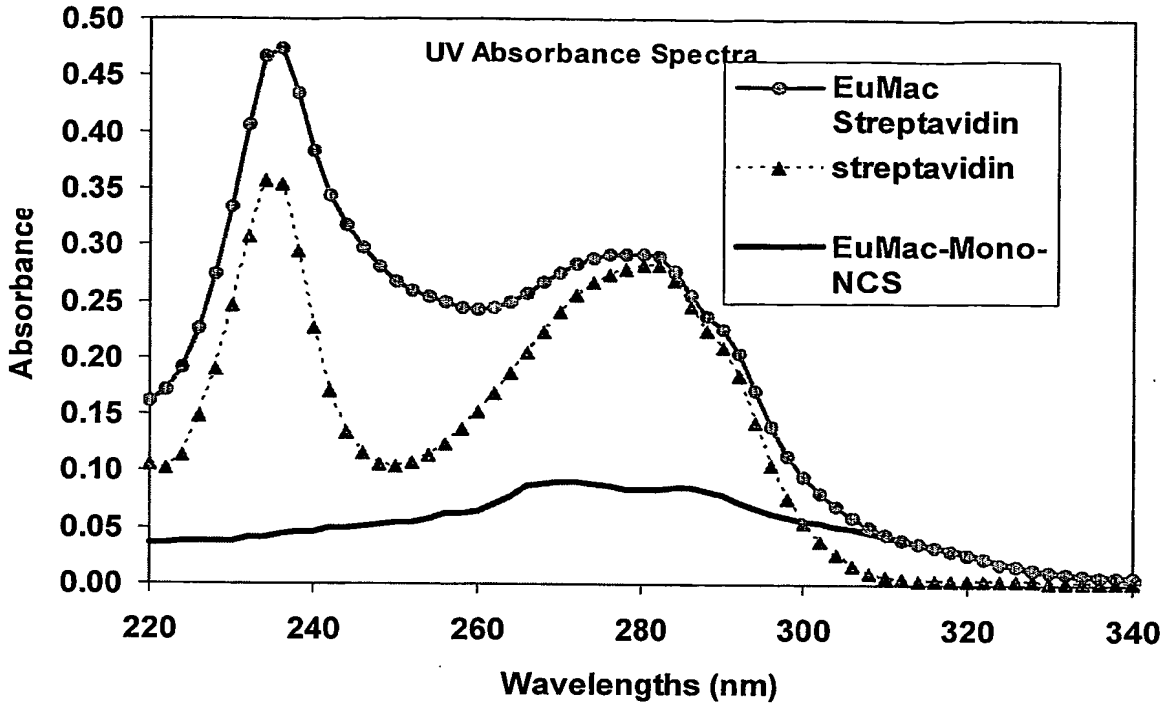


Figure 4 is a graphical presentation of the ultraviolet absorption spectra of the EuMac-mono-NCS, the EuMac coupled to streptavidin, and streptavidin.

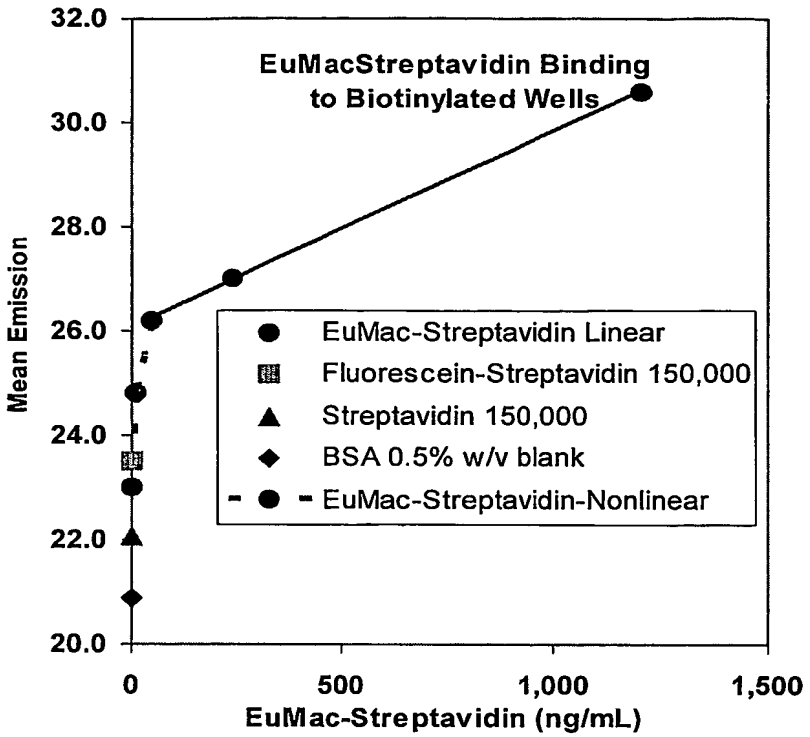


Figure 5 is a graph of the relative emission intensity versus the concentration of streptavidin added to the biotinylated well.

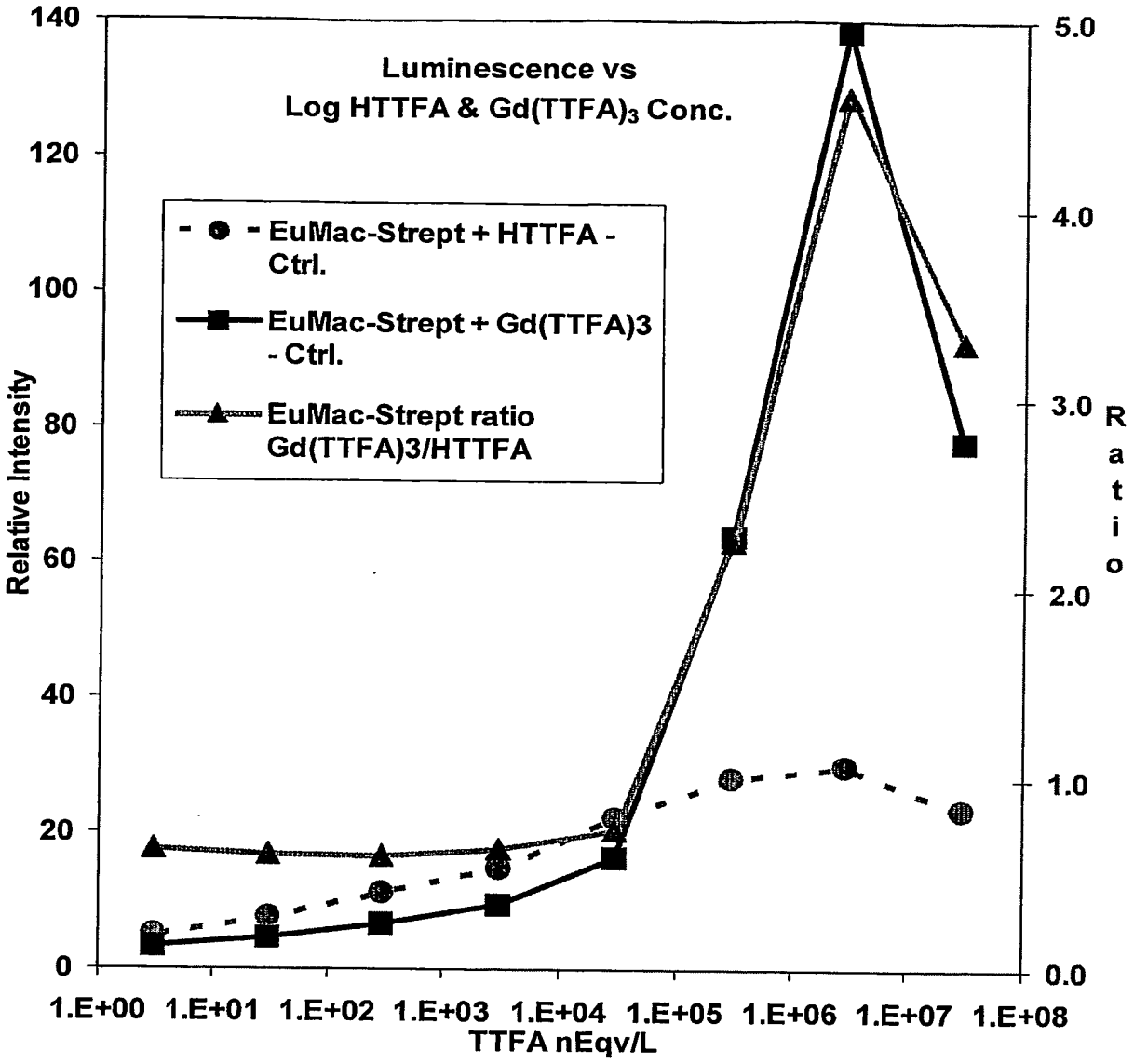


Figure 6 is a plot the concentrations of $Gd(TTFA)_3$ and HTTFA vs. relative luminescence.

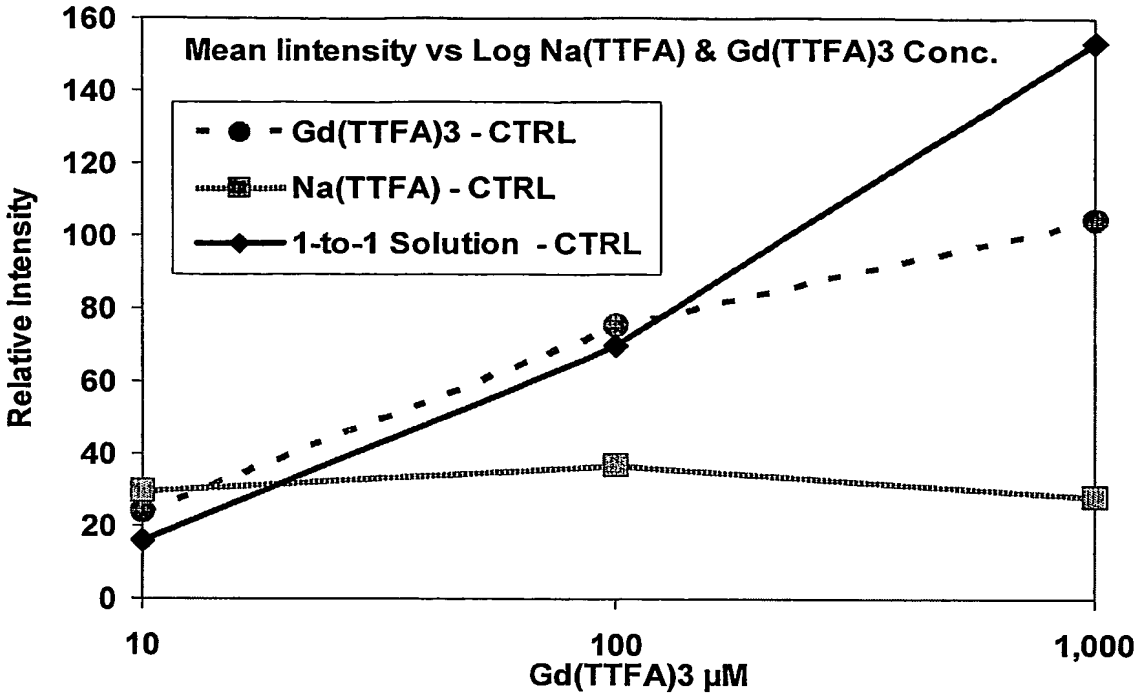


Figure 7 is a plot of the concentrations of $Gd(TTFA)_3$, Na(TTFA), and their one-to-one mixture vs. relative luminescence.

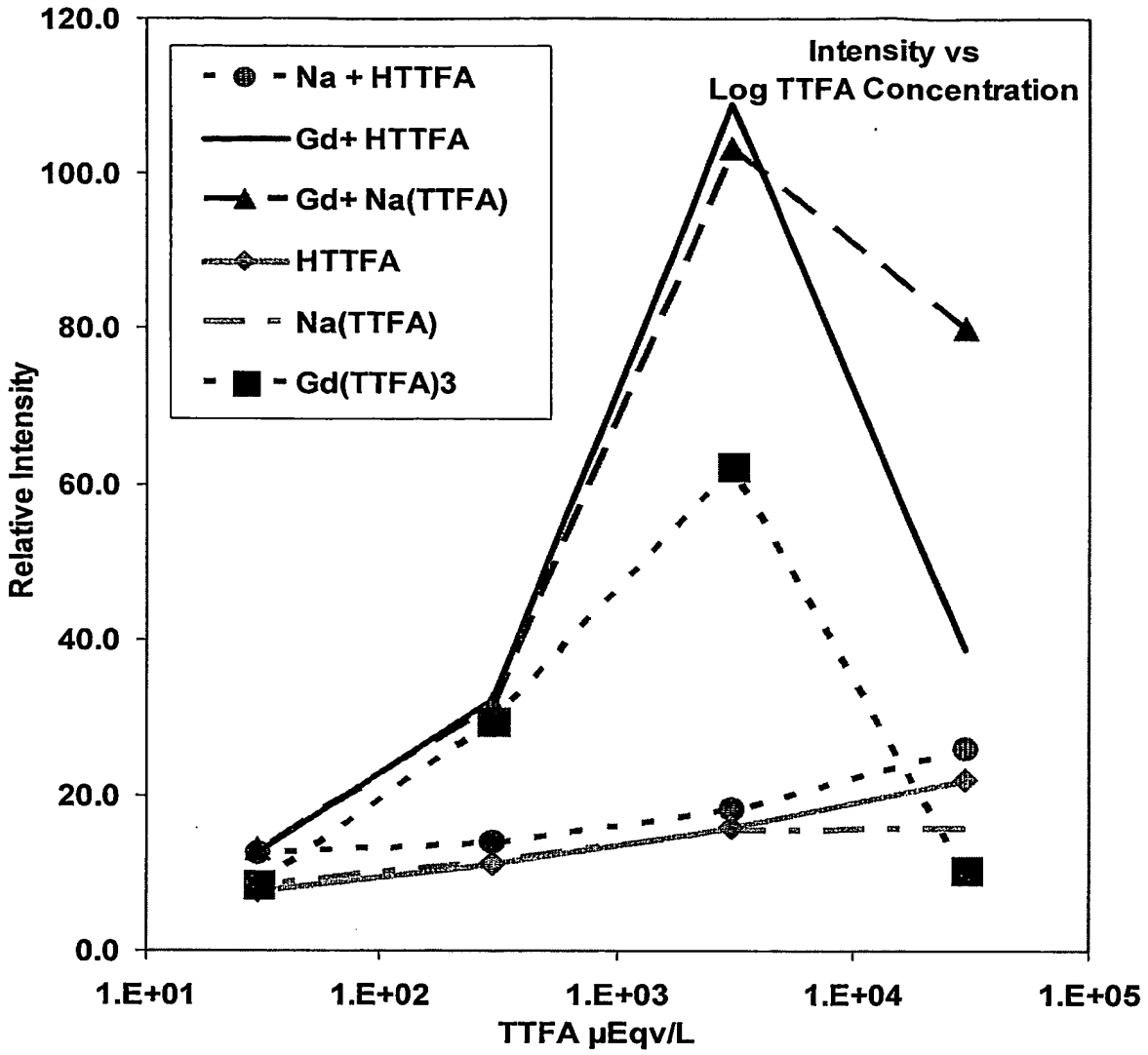


Figure 8 is a plot of the concentrations of $Gd(TTFA)_3$, Na(TTFA), HTTFA, and their mixtures vs. relative luminescence.

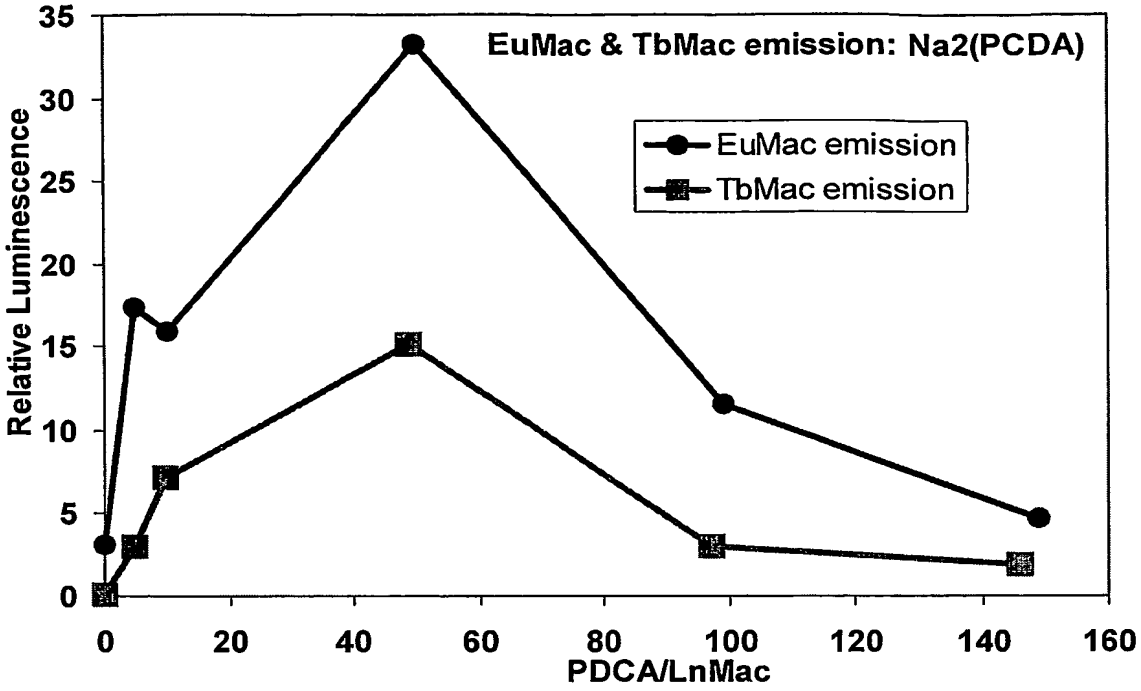


Figure 9a is a graph showing the effect of differing concentrations of Na_2(PDCA) on the luminescence of two different lanthanide macrocycles..

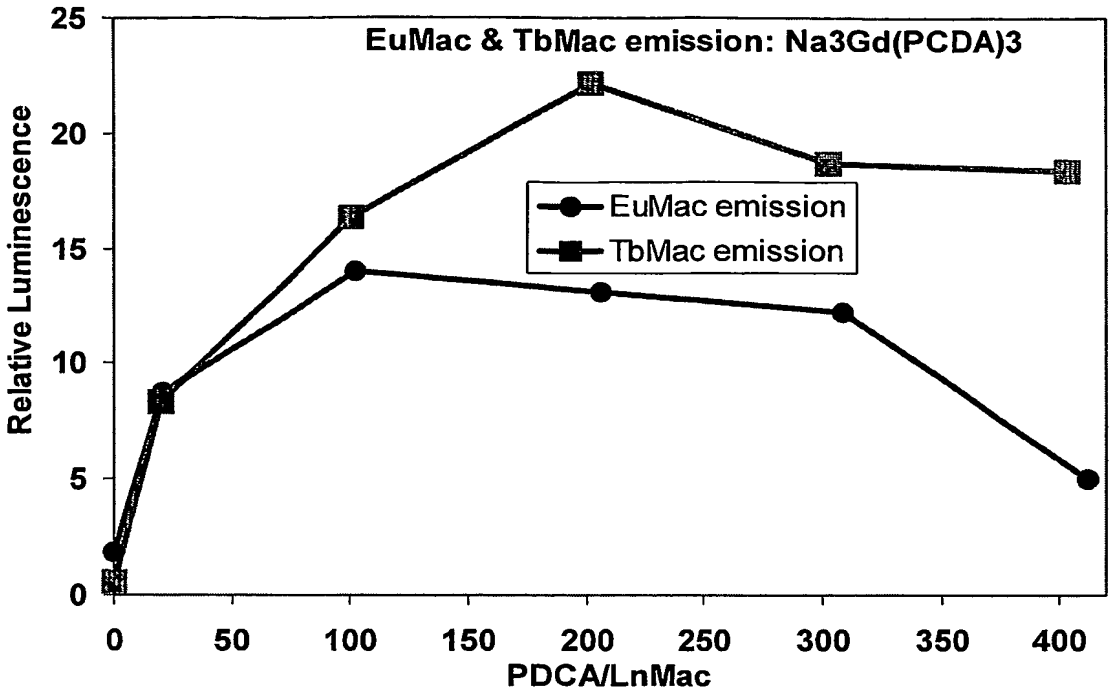


Figure 9b is a graph showing the effect of differing concentrations of $Na_3Gd(PDCA)_3$ on the luminescence of two different lanthanide macrocycles.

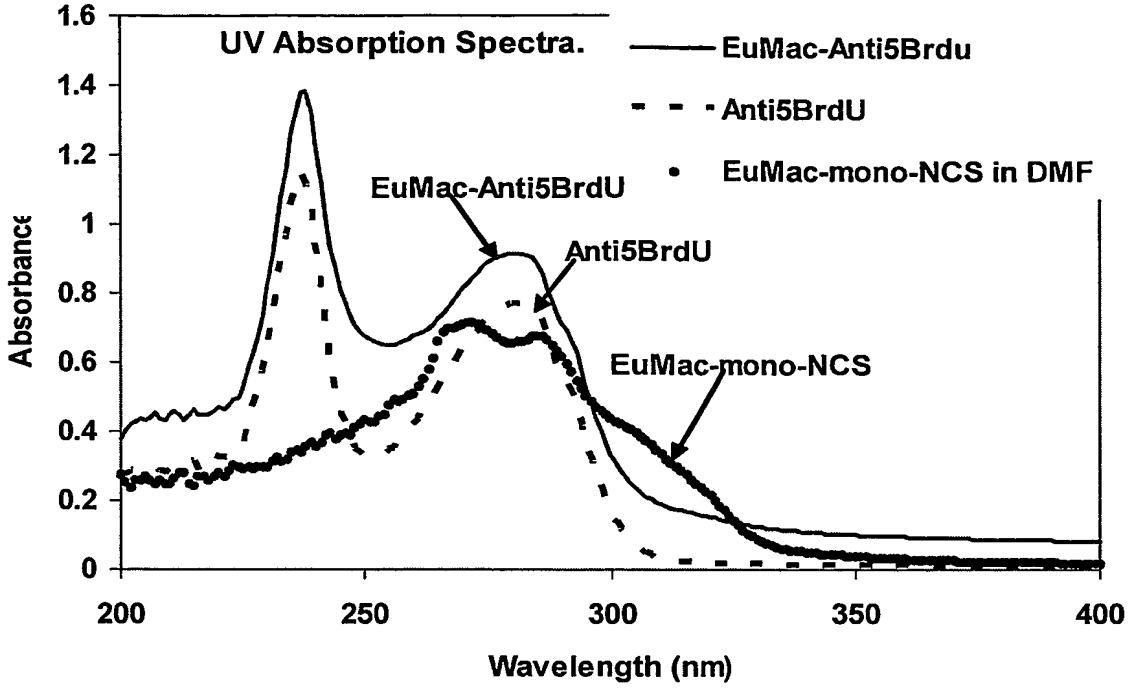


Figure 10 is a graphical presentation of the ultraviolet absorption spectra of the EuMac-mono-NCS, the EuMac coupled to anti-5-BrdU, and anti-5-BrdU.

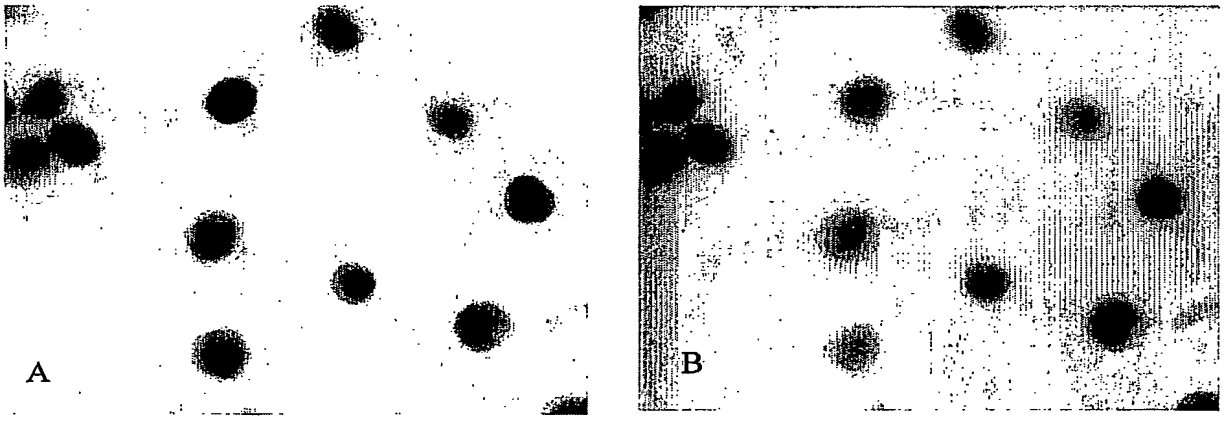


Figure 11 is a pair of inverted images of EuMac-di-NCS stained cells. A is a 5 second exposure; B is the summation of 1000 time-gated images, each exposed for 2 msec.

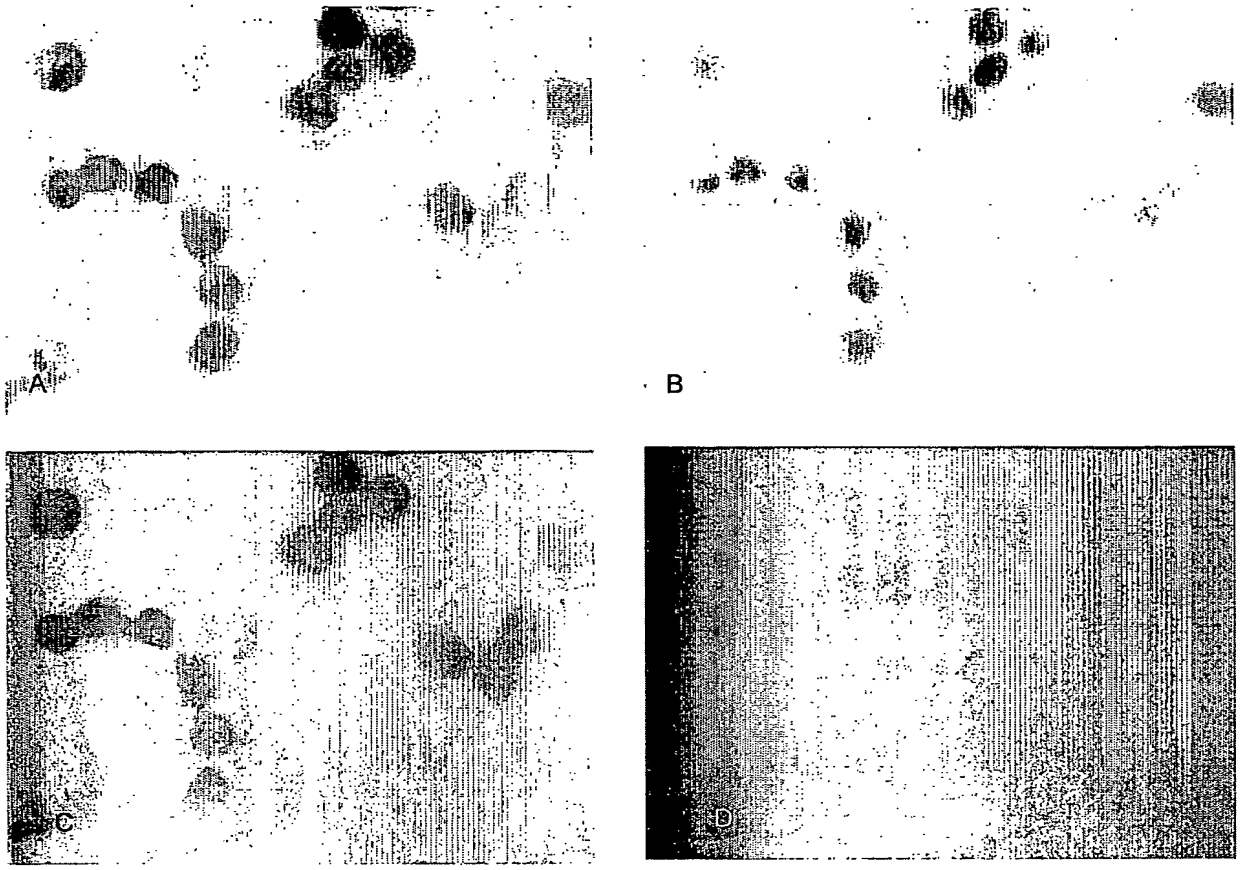


Figure 12 shows four images of a single preparation of nonapoptotic cells stained with both EuMac and DAPI.

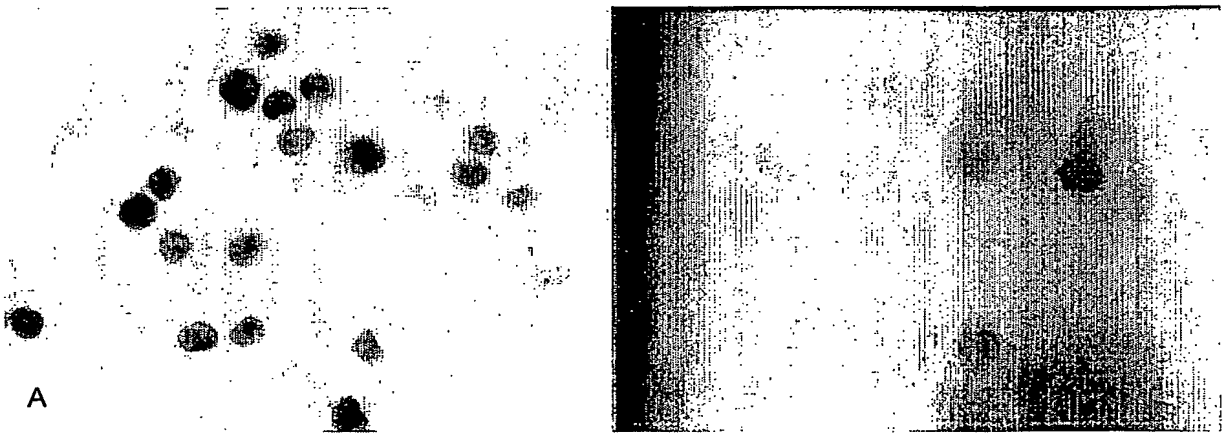


Figure 13 shows two inverted images of cells stained with SmMac-di-NCS and DAPI.

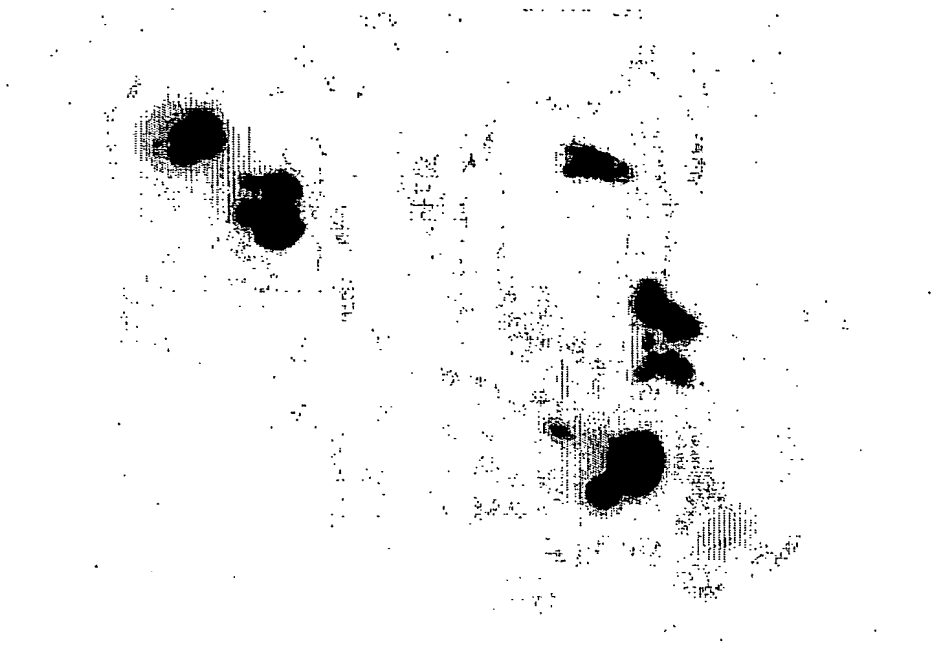


Figure 14 is an inverted image of directly stained apoptotic cells.

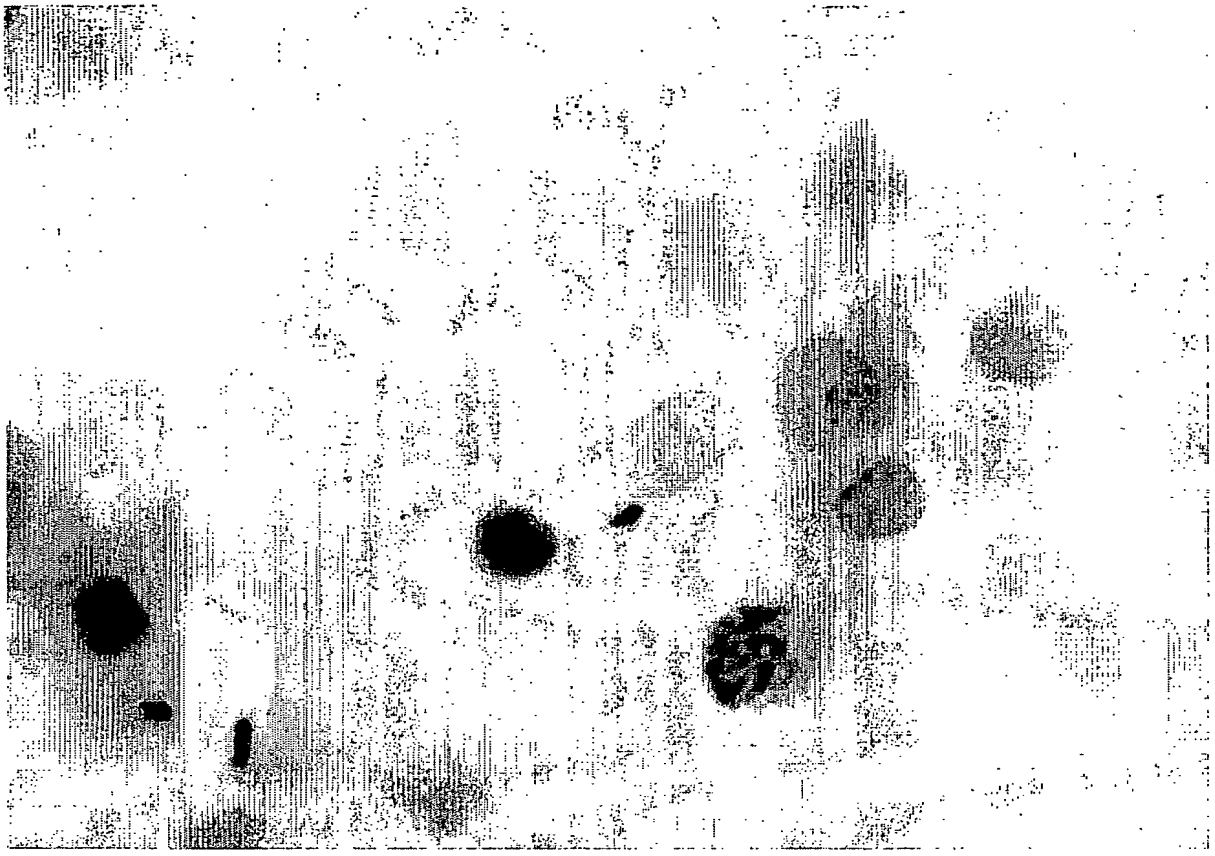


Figure 15 is an inverted image of EuMac-anti-5-BrdU stained cells in S phase.

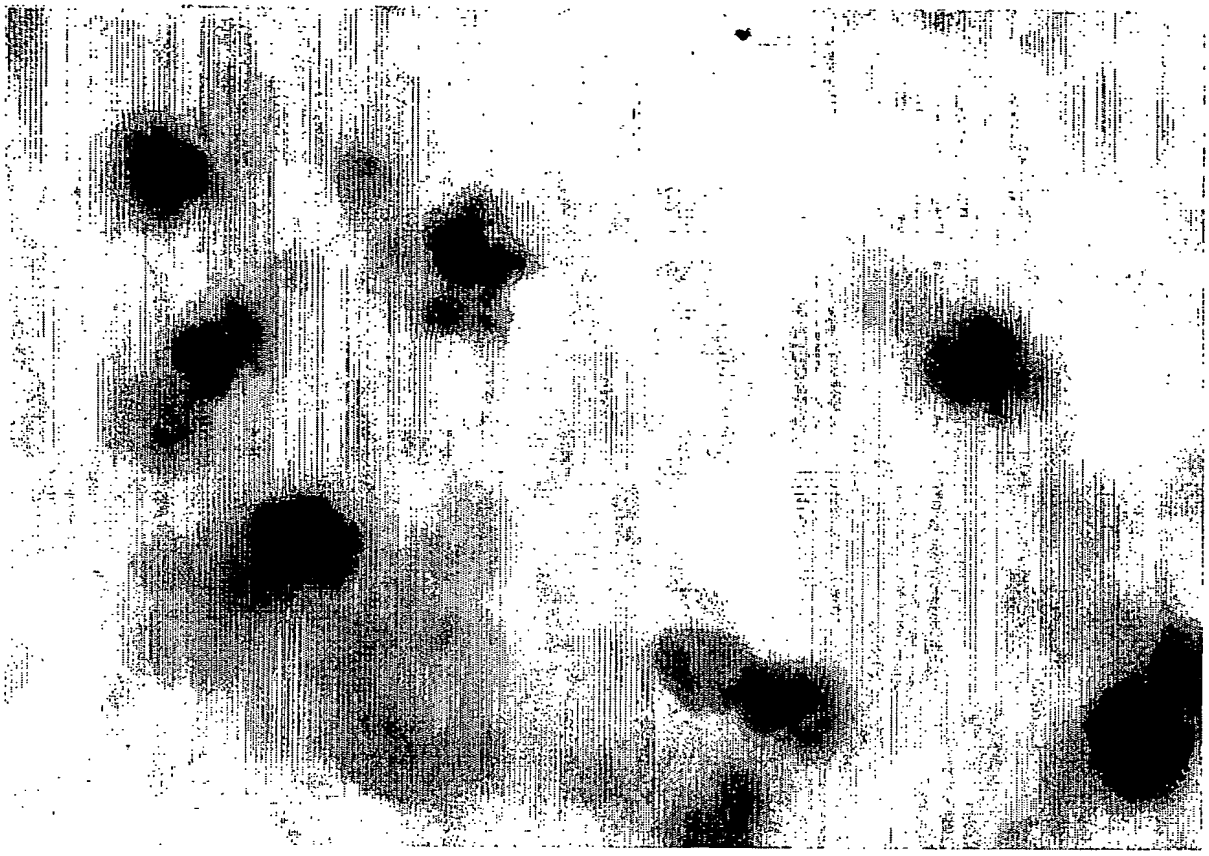


Figure 16 is an inverted image of EuMac-Streptavidin stained apoptotic cells.

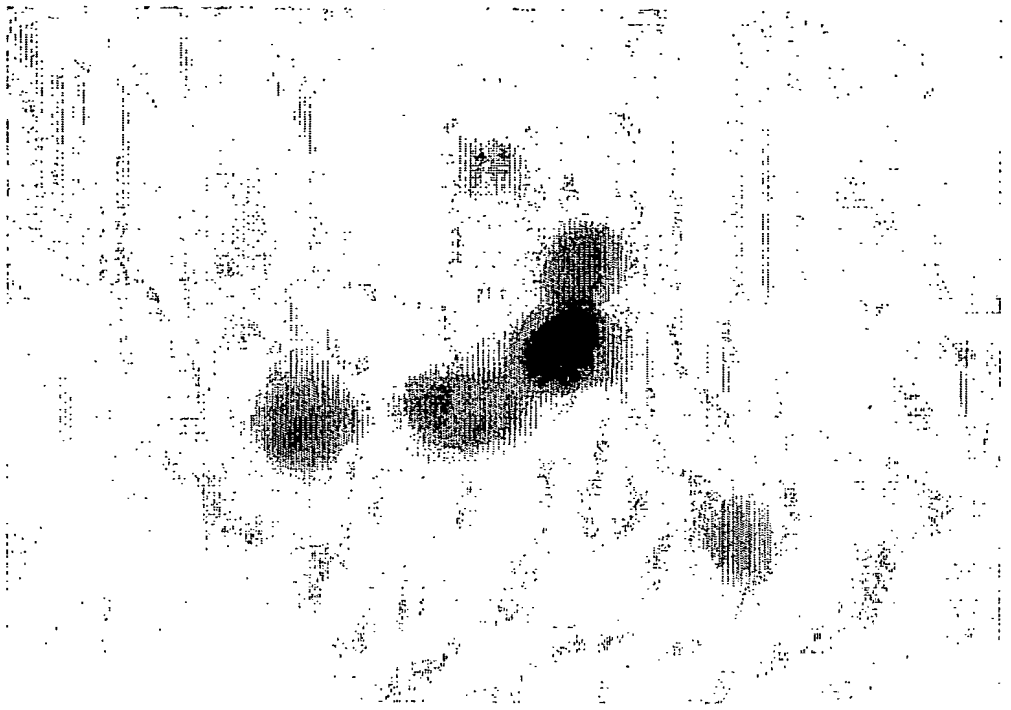


Figure 17 is an inverted image of EuMac-Streptavidin stained cells in S phase.

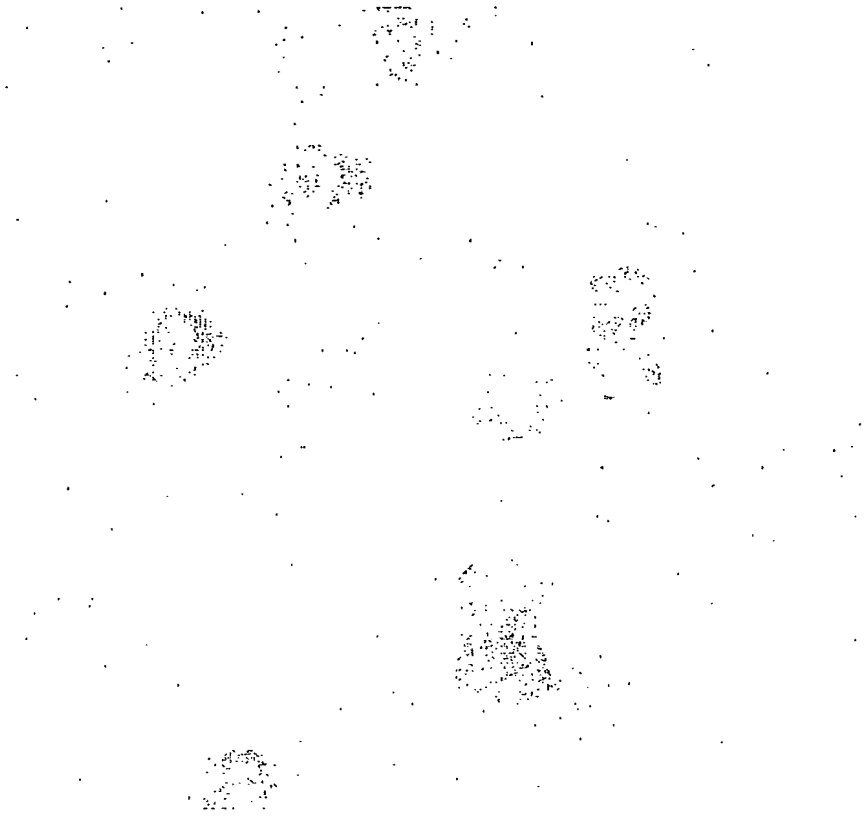


Figure 18 is an inverted image of two photon excited EuMac-di-NCS stained cells.